

Appl. No. 10/710,929  
Amdt. dated September 07, 2005  
Reply to Office action of July 22, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

1 (currently amended): A dual-band antenna, comprising:

- 5        a substrate having a first surface and a second surface that is on the opposite side of  
            the substrate from the first surface;  
      a transmission line coupled to a OLE\_LINK+ feeding point OLE\_LINK+ for  
            transmitting RF signals;  
      an emitting unit having a first wire and a second wire that are both disposed on the  
10        first surface, and the first wire and the second wire are crossed intersecting at  
            the feeding point, the emitting unit being disposed at a first edge of the  
            substrate; and  
      a ground pad disposed on the second surface of the substrate, wherein the ground  
            pad comprises a base from the base extending from a second edge of the  
15        substrate toward the feeding point, the first and second edges being located at  
            opposite sides of the substrate.

2 (original): The dual-band antenna of claim 1 wherein the transmission line is a  
            microstrip.

- 20        3 (original): The dual-band antenna of claim 1 wherein the transmission line is a coplanar  
            waveguide.

- 25        4 (original): The dual-band antenna of claim 1 wherein the transmission line is a coaxial  
            cable.

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5 (original): The dual-band antenna of claim 1 wherein the base of the ground pad is substantially rectangular.

6 (currently amended): The dual-band antenna of claim 1 wherein the ground pad further  
5 comprising comprises an extension disposed on the second surface and extending from the base toward [[a]] the first edge of the substrate.

7 (original): The dual-band antenna of claim 6 wherein the extension is adjacent to the emitting unit.

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8 (original): The dual-band antenna of claim 6 wherein the extension of the ground pad is substantially rectangular in shape.

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9 (currently amended): The dual-band antenna of claim 6 wherein the combination of the base and the extension forms an "L" shape.

10 (original): The dual-band antenna of claim 1 wherein the first wire decides the low operation frequency of the dual-band antenna.

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11 (original): The dual-band antenna of claim 1 wherein the second wire is shorter than the first wire and decides the high operation frequency of the dual-band antenna.

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12 (original): The dual-band antenna of claim 1 wherein the second wire is extended upward from the feeding point and bent at some angle, being parallel to one side of the base.

13 (original): The dual-band antenna of claim 1 wherein the first wire is extended upward from the feeding point and bent at some angle, being parallel to one side of the base.

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14 (original): The dual-band antenna of claim 1 wherein the characteristic impedance of the transmission line is 50 Ohms.